

PART 8. TRAFFIC CONTROLS FOR HIGHWAY-RAIL GRADE CROSSINGS

CHAPTER 8A. GENERAL

Section 8A.02 Use of Standard Devices, Systems, and Practices

Delete the second paragraph under the Standard subsection and insert the following:

Guidance:

Before any improvement is made at a railroad-highway crossing, an engineering study should be undertaken to determine what actions should be taken to enhance safety at the crossing. Actions may include the installation of traffic control systems or other improvements that have a demonstrated capacity to enhance safety and operations at the crossing.

With regard to traffic control systems, the following would apply:

- A. As a minimum, crossbucks, advance warning signs, and pavement markings as prescribed in Part 8 of the MUTCD shall be installed.
- B. The determination of the type of highway traffic control system, other than the minimum as required in A. above, at a particular crossing is a two-step process.
 - 1. The first step is to calculate a hazard index (APV) or hazard level of the crossing in question. The APV would be expressed in accidents per year.

The Accident Prediction Value (APV) shall be calculated using the procedures from the *Rail-Highway Crossing Resource Allocation Procedure-User's Guide, Second Edition*. FHWA-IP-86-11.¹

Using the calculated APV and the existing type of highway traffic control system at the crossing, the calculated APV shall be compared to threshold values in Table 8A-100 of this *Alaska Traffic Manual Supplement* to determine the type of traffic control system that should be installed.

- 2. The second step is to have the crossing evaluated by a diagnostic team as required by the Alaska Policy on Railroad/Highway Crossings.
- C. In using the quantitative procedure described in B., where a diagnostic team recommends the installation of a traffic control system different from that indicated by the threshold values, or recommends another type of crossing improvement, the recommendation of the diagnostic team shall take precedence over the quantitative procedure.

¹ Available through the National Technical Information Service, Springfield Virginia, 22161.

Table 8A-100
Qualitative Procedure

EXISTING TRAFFIC CONTROL DEVICE	Calculated Accident Prediction Value, APV	RECOMMENDED ACTION FOR IMPROVEMENT
Passive	0.08 to 0.12 ²	See note below.
	0.12 to 0.15	Flashing lights
	0.15 to 0.23	Flashing lights or gates and flashing lights
	0.23 to 12.4	Gates and flashing lights
Flashing lights	12.4 to 18.5	Gates and flashing lights or grade separation
	Greater than 18.5	Grade separation
	0.12 to 0.18 ²	See note below
	0.18 to 3.7	Gates and flashing lights
Gates	3.7 to 5.6	Gates and flashing lights or grade separation
	Greater than 5.6	Grade separation
	1.32 to 1.98 ²	See note below
	Greater than 1.98	Grade separation

¹ When the calculated hazard index falls within this range, the decision may be to do nothing, improve the existing traffic control system, install a different type of traffic control system, or make some other improvement at the crossing.

Support:

Other improvements that may be considered for enhancing crossing safety include:

- A. Improving sight distance to increase the visibility of the crossing and the train
- B. Closing the crossing
- C. Improving the approach alignment and/or grade of the roadway
- D. Instituting and enforcing railroad and/or highway operating regulations
- E. Improving the crossing surface
- F. Illuminating the crossing

The improvements shall also be in keeping with the Alaska Policy on Railroad/Highway Crossings.³

³ Available through the Alaska Railroad Corporation, Pouch 7-2111 (RAR-34), Anchorage, Alaska 99510-7069.

CHAPTER 8B. SIGNS AND MARKINGS

Section 8B.02 Highway-Rail Grade Crossing (Crossbuck) Sign (R15-1, R15-2)

Delete the second paragraph of the first Standard subsection and insert the following:

A strip of high intensity or brighter retroreflective white material not less than 6 inches in width shall be mounted on the back of each blade of each crossbuck sign for the length of each blade. Also, a similar 2-inch strip shall be used for the full length of the front and back of each support from the crossbuck sign/Number of Tracks sign to near ground level.

Section 8B.03 Highway-Rail Crossing Advance Warning Sign (W10 Series)

Delete the last paragraph in the first Standard subsection and insert the following:

Placement of the Highway-Rail Crossing Advance Warning sign shall be in accordance with Table 2C-4 in Chapter 2C, using “Stop” as the speed at the condition of concern.

Section 8B.100 BICYCLES (skewed track crossing symbol) USE CAUTION (W10-100)

This is a new section. There is no corresponding section in the MUTCD.

Sections 8B.19 through 8B.99 are reserved for future MUTCD use.

Standard:

The BICYCLES (skewed track crossing symbol) USE CAUTION (W10-100) sign shall be used on all paved roadways and paths in advance of the railroad grade crossings that are skewed 15 degrees or more.

Guidance:

If used, the sign should be placed 65 feet in advance of the near rail of the skewed railroad crossing.